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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,806	12/02/2000	Jens Rennert	US 008061	5576

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EXAMINER
GREEN III, THOMAS R

ART UNIT	PAPER NUMBER
2697	

DATE MAILED: 03/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/728,806	RENNERT ET AL.	
	Examiner	Art Unit	
	Thomas R Green III	2697	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 December 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2,3,5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Matsubara et al. ("Matsubara", EP 0936594 A1) in view of Baunach ("Baunach", U.S. Pat. No, 4,857,910). Matsubara discloses in his display mode selection method and display unit controller an invention that selects one display mode with respect to an input display signal. Baunach in his Bit-Map CRT Display Control discloses an apparatus and method for controlling a bit-mapped CRT display raster where a processor stores a bit-map of a CRT display frame in a buffer memory as strings of data words representative of bit-maps for single scan lines of the display. The combination of the two references manifests a computer-controlled sequence to select a proper display format from an input video signal based upon calculation of interpreted raster-scan generated data.

2. With respect to claim 1, which recites "A raster generator comprising:

each line descriptor of the list of line descriptors including a line-count parameter and a line-type parameter, the line-count parameter corresponding to a number of raster lines corresponding to the line-type parameter, the line-type parameter corresponding to a descriptor of a sequence of raster signals that form each raster line corresponding to the line-type parameter," Matsubara discloses a table defining parameters with respect to a plurality of

display modes. "The table shown in FIG. 3 divides the plurality of blocks so that display modes overlapping tolerable ranges of the horizontal scanning frequency fH are included in the same block." (Matsubara, col. 4, ll. 40-44 and FIG. 3) "FIG. 3 shows a case where 16 display modes exist...11 blocks are provided, and if a plurality of identification numbers exist within 1 block, the iD number is consecutively assigned in an order from the lowest horizontal scanning frequency fH." (Matsubara, col. 4, ll. 49-55 and FIG. 3). Matsubara discloses, "...if the block number is denoted BNo., the horizontal scanning frequency of the input display signal is denoted by fHi, and a and b are constants, the display mode selection program obtains the block which has the high possibility of including the display mode of the input display signal based on a calculation formula described by BNo.=(fHi-b)/a." (Matsubara, col. 5, ll. 11-17) It is clear that one can interpret the line descriptor, which determines the format for the display as the block number present in the reference, the line-count parameter as the number of displayable lines denoted by the resolution, and the line-type parameter as the iD number assigned to the respective input signal.

"and a signal generator that is configured to produce the sequence of raster signals based on the descriptor of the sequence." (Matsubara, FIG. 2, elements 5-7) Matsubara does show a list of line descriptors (FIG. 3), however, the reference does not show "a line sequencer that is configured to sequence through a list of line descriptors." Baunach discloses sequencing through a list of raster line descriptors (FIGS. 5-9, Abstract, col. 3, ll. 19-32). Thus it would have been obvious to combine the two references because such a system would allow a user to preview a plurality of displayable modes in order to select a preferred format. Further, Baunach indicates

that, "the data processing required to alter a CRT raster display is minimized." (Baunach, col. 2, ll. 35-38).

3. With respect to claim 2, which recites "a programmable memory that is configured to contain the list of line descriptors." (FIG. 2, elements 46 and 47 and col. 4, ll. 16-20)

4. With respect to claim 3, which recites "wherein each descriptor of the sequence of raster signals corresponds to a set of pattern identifiers, and the raster generator further comprises a pattern sequencer that is further configured to sequence through the set of pattern identifiers to produce a set of pattern sequences corresponding to the descriptor of the sequence." Matsubara discloses, "In FIG. 5, 'range' indicates the tolerable range of the deviation of the frequency the horizontal scanning frequency fH should originally have, 'specification' indicates the iD number within the block, 'calculation' indicates the block formula...and 're-calculation' indicates the rounded block number BNo." (Matsubara, col. 7, ll. 8-15 and FIG. 5). It is clear that the reference teaches a method of determining the proper display format which includes a range (set of pattern identifiers), specification (set of pattern sequences) corresponding to the descriptor of the sequence, the interpretation of the data present in the block and iD number.

5. With respect to claim 4, which recites "further including a programmable memory that is configured to contain each set of pattern identifiers." Matsubara discloses, "When the display mode of the input signal is selected, the contents of the table shown in FIG. 3 related to the selected display mode are stored in the memory as parameters related to the displayed mode. Accordingly, a display mode which is once selected is registered as a displayed mode, and parameters such as the block number BNo., the iD number, the horizontal scanning frequency fH and its polarity, the vertical scanning frequency fV and its polarity, the resolution and other

parameters related to the displayed mode are stored in the memory." (Matsubara, col. 7, ll. 33-43) It is clear that the "pattern identifiers" called for in the limitation are featured by the display mode selection process exhibited in the reference. This process is run by the display unit controller stored in memory. (Also see Matsubara, col. 4, ll. 16-20)

6. With respect to claim 5, which recites "wherein each pattern sequence of the set of pattern sequences corresponds to a set of duration-value pairs," (See FIG. 3) It is clear that the reference teaches a horizontal and vertical scanning frequency which directly corresponds to the displayable mode generated from the calculation of the input signal.

"and the signal generator produces the sequence of raster signals by applying particular raster values for particular durations, based on the duration-value pairs." (See FIG. 3) It is clear that the reference teaches a resolution, which commonly known is the number of pixels (individual points of color) contained on a display monitor, expressed in terms of the number of pixels on the horizontal axis and the number on the vertical axis.

7. With respect to claim 6, which recites "further including a programmable memory that is configured to contain each set of duration-value pairs." Matsubara discloses, "In the microcomputer controller, the ROM, stores a unit control program including a display mode selection program to be executed by the MPU. The display mode selection program receives measured results of the frequency and the polarity of the horizontal and vertical synchronizing signals fHi and fVi measured by the measuring circuit when the horizontal and vertical synchronizing signals fHi and fVi are input to the measuring circuit from the personal computer main body, and judges whether or not the horizontal scanning frequency fHi, for example, is within a predetermined range which includes the horizontal scanning frequency fH stored in a

table shown in FIG. 3..." (Matsubara, col. 4, ll. 21-33 and FIG. 3) It is clear that the horizontal and vertical synchronizing signals (the duration-value pairs) are contained in the memory of the microcomputer controller. This microcomputer controller is used to determine the proper output display mode for the corresponding input signal.

8. With respect to claim 7, which recites "An encoder that is configured to receive a digital representation of an image and to produce therefrom a composite video signal that is suitable for display on a display device, wherein the composite video signal includes a video component and a raster component (FIG. 2), the encoder comprising:

a datapath that is configured to transform pixel data into the video component of the composite video," Matsubara discloses, "The personal computer main body outputs an input display signal which includes a video signal such as R, G and B signals and horizontal and vertical synchronizing signals (fHi and fVi), and this input display signal is input to the display unit. The display unit generally includes the interface, a microcomputer controller, a video control circuit, a horizontal and vertical deflection controller, a power supply control circuit, and a CRT." (Matsubara, col. 4, ll. 4-12 and FIG. 2) It is clear that the reference teaches a method to output a video display signal that is generated from picture element data.

"and a raster generator that is configured to provide the raster component, the raster component comprising a plurality of raster lines," The office takes Official Notice that it is extremely conventional for a raster generator to have a component which comprises a plurality of raster lines since it is commonly known that The term raster refers to the region of a cathode ray tube (CRT) or liquid crystal display (LCD) monitor that is capable of rendering images. In a

CRT, the raster is a sequence of horizontal lines that are scanned rapidly with an electron beam from left to right and top to bottom, in much the same way as a TV picture tube is scanned.

"wherein the encoder also includes a raster definition data set that is configured to include a first link that includes a plurality of line parameters," (See FIG. 3) The reference teaches a plurality of line parameters as featured by the block number (line descriptor) and corresponding iD number (line-type). It is commonly known that a linked list is a data storing scheme used to append corresponding information in forward traversal method. It is noticed that the featured input signal information applies directly to each of the parameters seen in the reference; i.e. the block number, iD number, horizontal and vertical scanning frequencies and other raster-scan line parameters noted in the figure and having been addresses as above with respect to claim 1.

9. With respect to the following limitations of claim 7:

"each line parameter including a line-count parameter and a line-type parameter, the line-count parameter corresponding to a number of raster lines of the plurality of raster lines corresponding to the line-type parameter, and the line-type parameter including a pointer to one or more descriptors of the raster lines corresponding to the line-type parameter," the language contained in these steps are substantially the same as that of claim 1 and are therefore rejected under the same rationale.

10. Continuing with the prosecution of claim 7,

"and the raster generator is configured to provide the raster component of the composite video signal by processing the descriptors of each of the raster lines, via the first link list." (see Matsubara, col. 4, ll. 4-12 and FIG. 2 as applied above with respect to claim 1).

11. With respect to claim 8, which recites "wherein the one or more descriptors of the raster lines includes a second link list that includes pointers to one or more sets of raster sequences." Baunach discloses, "...each of the pointers [indicates] the starting address of the group associated with the next scan line, and means responsive to the pointers for outputting the mapping data as a serial bit stream with each group being synchronized with its associated scan line so that the mapping data is displayed in said display raster." (Baunach, col. 2, ll. 62-68) It is clear that the reference teaches pointers to scan lines of the raster-scan sequences of the present invention.

12. With respect to claim 9, which recites "wherein each one of the two or more raster sequences includes a plurality of sequence descriptors that define discrete intervals for asserting raster values." Baunach teaches that the "apparatus may be used in accordance with the method of the subject invention by storing sequential groups of data words defining a bit-map of associated scan lines in a buffer memory, storing pointers associated with the groups in the buffer memory the pointer defining the initial address of the next group, sequentially outputting and serializing the first group synchronously with the first scan line, determining the initial address of the next group from the associated pointer, sequentially outputting and serializing the next group sequentially synchronously with the next scan line, repeating the [previous] two steps until the last group is output and returning to output the first group again synchronously with the first scan line." (Baunach, col. 3, ll. 19-32). It is clear that the reference teaches a sequence to determine raster-scan information used to select the proper display format necessary as they corresponding to the appropriate block number.

13. Method claims 10 and 12 recite steps performed by the apparatus that are similar in scope with respect to claim 1 and are rejected under the same rationale.

14. Method claim 11 recites steps performed by the apparatus that are similar in scope with respect to claim 2 and is rejected under the same rationale.

15. Method claim 13 recites steps performed by the apparatus that are similar in scope with respect to claim 4 and are rejected under the same rationale.

16. Method claim 14 recites steps performed by the apparatus that are similar in scope with respect to claim 5 and are rejected under the same rationale.

17. Method claim 15 recites steps performed by the apparatus that are similar in scope with respect to claim 6 and are rejected under the same rationale.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas R. Green III whose telephone number is (703) 305-3418. The examiner can normally be reached Monday-Thursday between 8:00 AM and 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joe Mancuso, can be reached at (703) 305-3885.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.